

REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 1-4 and 6-8 remain active in the application subsequent to entry of this Amendment.

Independent claims 1 and 7 have been amended to specify the nature of the “phosphate” component which is present in an amount of 1-25% by weight in both claims. Applicants specify a metal salt of metaphosphoric acid as disclosed in the specification throughout the description, and in particular on page 7, second full paragraph and in the working examples, for instance in Example 1 magnesium metaphosphate was employed. The amendments made to claims 1 and 7 serve to further define the invention and additionally distinguish it from the prior art as neither of the two main citations disclose the use of metal salts of metaphosphoric acid and are fairly based upon the description of the invention.

Various claims stand rejected on the basis of the prior art, 1 and 6 based upon Nakamaru ‘322 while claims 2-4 are rejected on the basis of the same reference in combination with Nakamaru ‘406 and both of them are applied against claims 7 and 8.

As a point of correctness, the spelling of Nakamaru is correct – it does not end with an “a” as given in the current Official Action.

The two citations are assigned to the owners of the present application and indeed Takashi Nakamaru is one of the inventors of the present application plus a patentee on both of the issued patents, thus applicants and in particular Mr. Nakamaru, are well familiar with the content of the two documents cited and applied in the current Official Action and are well familiar with the information contained in those documents, the problems to which they are directed and the means by which those problems are solved. The problems to which they are directed and means used to solve them are quite different from the disclosures of the present application and indeed the Nakamaru ‘322 document is, in effect, acknowledged and discussed on page 2 of the application and the subject of various comparative examples.

In the present invention applicants acknowledge as the prior art shown Nakamaru et al (‘322) whose basic Japanese application is No. 6-132562 which laid open No. is 8-41484 (1996) (*see* page 2 of the present specification). The present invention is made on the basis that as the component C, lead and lead alloys were not used. Therefore, one of the objects of the present invention is to provide a resin composition containing no component C as in Nakamaru (‘322).

The Examiner states that Nakamaru ('322) does not disclose both phosphate and barium sulfate in the same composition -- since both substances have an effect of facilitating formation of a lubricating film of PTFE on the sliding surface of the mating member is taught by Nakamaru ('322) -- argues it is well settled that a *prima facie* case of obvious is to combine two ingredients each of which is taught by the prior art to be useful for the same purpose.

Although the cited reference for rejection of claim 1 is Nakamura ('322), however, the Examiner's statement relating to claim 7 also relates to claim 1. Therefore, in claim 1, Nakamaru ('406) should also be considered.

As seen from the present Comparative Examples 3, 4¹ and 5, in case of using magnesium silicate, it is clearly understood that good wear resistance cannot be attained when using only any one of a phosphate or barium sulfate and using no lead. Therefore, this unexpected technical effect is not suggested by merely combining thereof.

In the technical background, Nakamaru ('322), states that "In PTFE compositions for a sliding member, many fillers for engineering plastics, especially graphite, molybdenum disulfide, other metal sulfides, metal oxides and inorganic fibers such as glass fiber and carbon fiber are used. However, these fillers, although contributing to the improvement of wear resistance property of the sliding layer, tend to give rise to the problem of impairing the peculiar low friction properties of PTFE." (See column 1, lines 49-56). Therefore, in Nakamaru ('322), the component B (magnesium silicate or mica) and the component C (lead, tin, lead-tin alloy and mixtures thereto) are used without using the inorganic fibers.

¹ The results presented in the original specification accompanied by the executed declaration signed by the inventors would have significant evidentiary weight, comparable to the weight given to an executed declaration. It is well established by the Federal Circuit that "the examiner must consider comparative data presented in the specification which is intended to illustrate the claimed invention in reaching a conclusion in regard to the obviousness of claims." *In re Margolis*, 785 F.2d 1029, 228 U.S.P.Q. 1123, 1129 (Fed. Cir. 1993).

On the other hand, in the technical background of Nakamaru ('406), the patentees state that "However, although these fillers contribute to the improvement of the abrasion resistance of the resin layer, the fillers bring about a problem of worsening the low frictional properties inherent to the PTFE resin unless a sufficient care is taken for the blending amount." Therefore, in Nakamaru ('406), which is different from Nakamaru ('322), glass fibers are used in a specific amount so that good wear resistance can be obtained and also, in order to solve the above problem, barium sulfate and calcium pyrophosphate or calcium hydrogen phosphate are used in combination.

Specifically, the invention of Nakamaru ('322) is a sliding member (resin composition) using no inorganic fibers; on the other hand the invention of Nakamaru ('406) is a sliding member (resin composition) using inorganic fibers in a specific amount. Therefore, these two inventions are completely different in the problems to be solved and the means for accomplishing a favorable (successful) result.


All this is to demonstrate that it is difficult to apply the combination of phosphate and barium sulfate in Nakamaru ('406) to Nakamaru ('322) and conversely to apply magnesium silicate Nakamaru ('322) to Nakamaru ('406) because there is a significant difference in technical objective between ('322) and ('406); using no inorganic fibers ('322) and using inorganic fibers ('406) in a specific amount.

For the above reasons it is respectfully submitted that the claims of this application define patentable subject matter. Reconsideration and allowance are solicited. Should the examiner require further information, please contact the undersigned.

Respectfully submitted,

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